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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR*	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,220	08/20/2001	Mitko G. Mitev	10012237-1	6401

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HEWLETT-PACKARD COMPANY
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EXAMINER

KIM, CHONG R

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 08/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/933,220

Applicant(s)

MITEV ET AL.

Examiner

Charles Kim

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

The following quotation of 37 CFR § 1.75 (d)(1) is the basis of objection:

(d)(1) The claim or claims must conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description. (See § 1.58(a)).

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

The applicant's specification fails to provide support for the phrase "the control system disables at least one of the light source and at least a portion of the light sensor in the first mode" in lines 1-3 of claim 25. More specifically, the Examiner was unable to find support for the step of disabling the light source and light sensor during a first mode of scanning fingerprint data. It appears that the applicant intended the claim to read "the control system disables at least one of the light source and at least a portion of the light sensor in the second mode" as supported on page 8, lines 4-11 of the applicant's specification. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for

Art Unit: 2623

patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 7-13, 15-19, 21, 23-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Brownlee, U.S. Patent No. 6,282,303 ("Brownlee").

Referring to claim 1, Brownlee discloses a user interface for use with a computer, comprising:

- a. an at least partially transparent roller (920) [col. 4, lines 40-45 and figure 9]
- b. a sensor system, associated with the transparent roller, operable in a first mode to sense the image of a fingerprint and operable in a second mode to sense the rotational motion of the roller (col. 4, lines 15-56).

Referring to claim 2, Brownlee further discloses at least one manually actuatable element (930) [figure 9].

Referring to claim 3, Brownlee further discloses that the at least one manually actuatable element comprises a button (930) [figure 9].

Referring to claim 4, Brownlee further discloses that the manually actuatable element comprises a pair of buttons located on opposite sides of the roller (figure 9).

Referring to claim 5, Brownlee further discloses at least one manually actuatable element that comprises a plurality of keys together defining a keyboard (figure 11).

Referring to claim 7, Brownlee further discloses that the sensor system includes a light sensor and a light source that emits light which passes through the roller (col. 3, lines 11-42 and figure 2).

Art Unit: 2623

Referring to claim 8, Brownlee further discloses a movement tracking device that tracks the movement of the user interface as it is moved over a surface (figure 9).

Referring to claim 9, Brownlee discloses a user interface for use with a computer, comprising:

- a. an at least partially transparent roller (203) [col. 3, lines 11-42 and figure 2]
- b. a light source (215) that emits light which passes through the roller [col. 3, lines 11-42 and figure 2]
- c. a light sensor (223) that receives reflected light [col. 3, lines 11-42 and figure 2]
- d. a rotational motion sensor associated with the roller that senses rotational motion of the roller (col. 3, lines 43-65)
- e. a control system, associated with the light source, light sensor and rotational motion sensor, the control system being operable in a first mode to enable operation of the light source, light sensor and rotation motion sensor (col. 5, line 26-col. 6, line 33, more specifically col. 6, lines 8-33) and operable in a second mode to enable operation of the rotation motion sensor and disable operation of at least one of the light source and at least a portion of the light sensor (col. 5, lines 26-40, more specifically lines 39-40).

Referring to claim 10, see the rejection of at least claim 2 above.

Referring to claim 11, see the rejection of at least claim 3 above.

Referring to claim 12, see the rejection of at least claim 4 above.

Referring to claim 13, see the rejection of at least claim 5 above.

Referring to claim 15, see the rejection of at least claim 8 above.

Referring to claim 16, Brownlee discloses a computer system, comprising:

Art Unit: 2623

- a. a user interface including an at least partially transparent roller (col. 3, lines 11-42 and figure 2)
- b. an image sensor associated with the roller that senses the image of a fingerprint and generates fingerprint image data (col. 3, lines 11-42 and figure 2)
- c. a rotational motion sensor associated with the roller that senses rotational motion of the roller and generates roller motion data (col. 3, lines 43-65)
- d. a control system associated with the image sensor and rotational motion sensor, the control system being operable in a first mode to convert the fingerprint image data and rotational motion data into data representative of the scanned fingerprint (col. 4, lines 15-36), and operable in a second mode to control an operation of the computer system in response to the roller motion data (col. 4, lines 40-56 and col. 7, lines 14-20).

Referring to claim 17, Brownlee further discloses that the control system comprises at least one processor (figure 6).

Referring to claim 18, Brownlee further discloses a computer housing in which the processor is located (col. 1, lines 26-44. Note that the laptop computer in line 29 comprises a computer housing).

Referring to claim 19, Brownlee further discloses a display pivotably connected to the computer housing (col. 1, lines 26-44. Note that the laptop computer in line 29 comprises a display pivotably connected to the computer housing).

Referring to claim 21, Brownlee further discloses a user interface housing separate from the computer housing (figure 9).

Referring to claim 23, see the rejection of at least claim 5 above.

Art Unit: 2623

Referring to claim 24, Brownlee further discloses a light source that emits light which passes through the roller and a light sensor that receives light reflected through the roller (figure 2).

Referring to claim 25 as best understood, Brownlee further discloses that the control system disables at least one of the light source and at least a portion of the light sensor in the second mode (col. 5, lines 39-40).

Referring to claim 26, Brownlee further discloses that the operation of the computer system comprises a scrolling operation (col. 4, lines 40-56).

Referring to claim 27, Brownlee discloses a method of operating a computer system including an at least partially transparent roller, the method comprising the steps of:

- a. receiving data corresponding to rotational motion of the roller (col. 3, lines 42-65)
- b. using the data corresponding to rotational motion of the roller to generate data corresponding to a fingerprint when the computer system is in a fingerprint scanning mode (col. 4, lines 15-35)
- c. using the rotational motion of the roller to control a predetermined aspect of computer system operation when the computer system is not in the fingerprint scanning mode (col. 4, lines 40-56 and col. 7, lines 14-20).

Referring to claim 28, see the rejection of at least claim 26 above.

Referring to claim 29, Brownlee further discloses the steps of:

- d. directing light through the at least partially transparent roller onto a finger during the fingerprint scanning mode (figure 2)
- e. sensing the light reflected by the finger (figure 2)

Art Unit: 2623

f. generating data corresponding to the light reflected by the finger (col. 4, lines 15-35)

g. using the data corresponding to the light reflected by the finger to generate data corresponding to a fingerprint (col. 4, lines 15-35).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 6, 14, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Brownlee, U.S. Patent No. 6,282,303 ("Brownlee"), and Akizuki, U.S. Patent No. 6,360,004 ("Akizuki").

Referring to claim 6, Brownlee does not explicitly disclose that the manually actuatable element comprises a touch pad. However, the Examiner notes that touch pads were exceedingly well known in the art. For example, Akizuki discloses a manually actuatable element that comprises a touch pad (4) [col. 3, lines 3-23].

Brownlee and Akizuki are combinable because they both concerned with user interface systems that operate in a first mode of fingerprint imaging and in a second mode of operational control of a computer. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the manually actuatable element of Brownlee so that it

Art Unit: 2623

comprises a touch pad, as taught by Akizuki. The suggestion/motivation for doing so would have been to provide a compact, light and inexpensive user interface, thereby enhancing the ergonomics of the system (Akizuki, col. 2, lines 17-20). Therefore, it would have been obvious to combine Brownlee with Akizuki to obtain the invention as specified in claim 6.

Referring to claim 14, see the rejection of at least claim 6 above.

Referring to claim 22, see the rejection of at least claim 6 and the discussion of at least claim 4 above.

4. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brownlee, U.S. Patent No. 6,282,303 ("Brownlee").

Referring to claim 20, Brownlee further discloses that the user interface can be used in a constrained environment such as a laptop computer (col. 1, lines 18-45), but does not explicitly disclose that the user interface is mounted on the computer housing. However, Official notice is taken that it was exceedingly well known for laptop computers to comprise a user interface that was mounted on the computer housing. Therefore, it would have been obvious to modify the user interface of Brownlee so that it is mounted on the computer housing. The suggestion/motivation for doing so would have been to enhance the ergonomics of the system by providing a compact and portable integrated laptop computer.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Kim whose telephone number is 703-306-4038. The

Art Unit: 2623

examiner can normally be reached on Mon thru Thurs 8:30am to 6pm and alternating Fri 9:30am to 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703-308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



ck

July 27, 2004



Jon Chang
Primary Examiner